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| 10/812,967 | 03/31/2004 | Toshihiro Morita | 251011US6 | 4875 |

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OBLON, SPIVAK, MCCLELLAND MAIER & NEUSTADT, P.C.
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ALEXANDRIA, VA 22314

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| EXAMINER |
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OLANIRAN, FATIMAT O

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| ART UNIT | PAPER NUMBER |
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2614

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12/26/2008

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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|------------------------------|--|--------------------------------------|--|
| Office Action Summary | Application No. 10/812,967 | Applicant(s) MORITA ET AL. | |
| | Examiner FATIMAT O. OLANIRAN | Art Unit 2614 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 November 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claims 1-7 have been considered but are not persuasive.

Applicant argues on page 10, "...Gilbert '577 does not disclose or suggest means for detecting detect inter-track boundaries of a plurality of tracks based on second portions..."

Examiner respectfully disagrees, Gilbert discloses detecting inter-track boundaries based on a plurality of tracks and portions as presented in the previous office action and the office action below. Examiner argues that applicant is limiting the term, "...second portions..." to applicant specification. Giving the broadest most reasonable interpretation Gilbert discloses portions of audio because of the plurality of silent segments that correspond to the plurality of tracks (abstract).

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gilbert et al (6560577) in view of Gilbert (6763274).

Claim 1, Gilbert et al discloses an information processing apparatus for detecting inter-track boundaries, (abstract) comprising: eliminating means for generating noise-eliminated audio data by eliminating noise from audio data generated by digitally converting analog audio signals of a plurality of tracks (col. 3 line 61-67 and col. 4 line 1-20) the plurality of tracks having inter-track boundaries that are silent means for detecting presumed inter-track boundaries presumed to be inter-track boundaries of said plurality of tracks: based on first portions of said noise-eliminated audio data the first portions having signal levels lower than a predetermined level threshold value (col. 5 line 1-12, limitation, "predetermined threshold" is inherent to invention because silence is a threshold); said means for detecting detects said inter-track boundaries of said plurality of tracks, based on second portions of said noise-eliminated audio data, when a number of presumed tracks is smaller than said number of tracks, the second portions having signal levels lower than a level threshold, the presumed tracks being tracks divided by said presumed inter-track boundaries; (col. 5 line 1-37)

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and means for specifying said inter-track boundaries from said presumed inter-track boundaries, based on inter-track boundaries specifying information including a number of tracks of said plurality of tracks (col. 4 line 43-61).

Gilbert et al does not explicitly disclose the second portions having signal levels lower than another level threshold value greater than said predetermined level threshold value.

Gilbert discloses two threshold levels for silence and background noise (col. 4 lines 33-46). Gilbert does not explicitly disclose one threshold value greater than another; however it would be obvious to one of ordinary skill in the art at the time of the invention that a noise threshold would be higher than a silence threshold. Therefore it would be obvious to one of ordinary skill in the art at the time the invention was made to modify the silence detecting software of Gilbert et al with the floating threshold of Gilbert in order to detect silence, music, noise and various audio states.

In addition, the limitation, "...based on the portions of said noise-eliminated audio data whose signal levels are lower than another level threshold value greater than said predetermined level threshold value.." states that the signal levels are lower than the predetermined level threshold because the other threshold is greater than the predetermined threshold. Therefore it would be obvious to one of ordinary skill in the art at the time the invention was made that the silence detecting software of Gilbert implicitly reads on this limitation.

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Claim 2 analyzed with respect to claim 1, Gilbert et al discloses said means for specifying specifies as said inter-track boundaries presumed inter-track boundaries in between presumed tracks (col. 4 line 30-39), said inter-track boundaries specifying information including the shortest playing time and the longest playing time (col 4 line 47-51).

Gilbert et al does not explicitly disclose presumed tracks, the presumed tracks having playing times longer than a shortest playing time among playing times of the tracks and shorter than a longest playing time among the playing times of the tracks.

However Gilbert discloses matching track lengths, (col. 5 line 27-31) and detecting a smaller than average track (col. 4 line 61-67).

Therefore it would be obvious to one of ordinary skill in the art at the time the invention was made that the audio method of Gilbert determines a track length error by noting smaller or larger than average track lengths.

Claim 3 analyzed with respect to claim 1, Gilbert et al discloses wherein said means for specifying presumes said presumed inter-track boundaries as said inter-track boundaries based on errors between the presumed track playing times of presumed tracks and playing times of the tracks time (col. 5 line 25-37), said inter-track boundaries specifying information including the playing times of the tracks (col. 4 line 49-50).

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Claim 4 analyzed with respect to claim 1, Gilbert et al discloses wherein said means for specifying compares the number of presumed tracks with said number of tracks, and said means for detecting detects said inter-track boundaries of said plurality of tracks, (col. 5 line 1-12), when the number of presumed tracks is smaller than said number of tracks according to a result of the comparison by said means for specifying (col. 4 line 42-45);

Claim 5, Gilbert et al discloses an information processing method for detecting inter-track boundaries (abstract), comprising: of generating noise-eliminated audio data by eliminating noise from audio data generated by digitally converting analog audio signals of a plurality of tracks, the plurality of tracks having inter-track boundaries that are silent (col. 4 line 6-15 and col. 4 line 30-39) detecting presumed inter-track boundaries presumed to be inter-track boundaries of said plurality of tracks based on first portions of said noise-eliminated audio data, the first portions having signal levels lower than a predetermined level threshold value (col. 5 line 1-12, limitation, "predetermined threshold" is inherent to invention because silence is a threshold); and of specifying said inter-track boundaries from the detected presumed inter-track boundaries, based on inter-track boundaries specifying information including at least one of a number of tracks of said plurality of tracks and playing times of the tracks (col. 4 line 42-56)

detecting said inter-track boundaries of said plurality of tracks, based on second portions of said noise-eliminated audio data, when a number of presumed tracks is

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smaller than said number of tracks, the second portions having signal levels lower than a level threshold value, the presumed tracks being tracks divided by said presumed inter-rack boundaries (col. 5 line 1-37).

Gilbert et al does not explicitly disclose, the second portions having signal levels lower than another level threshold value greater than said predetermined level threshold value

Gilbert discloses two threshold levels for silence and background noise (col. 4 lines 33-46). Gilbert does not explicitly disclose one threshold value greater than another;

however it would be obvious to one of ordinary skill in the art at the time of the invention that a noise threshold would be higher than a silence threshold. Therefore it would be obvious to one of ordinary skill in the art at the time the invention was made to modify the silence detecting software of Gilbert et al with the floating threshold of Gilbert in order to detect silence, music, noise and various audio states.

In addition, the limitation, "...based on the portions of said noise-eliminated audio data whose signal levels are lower than another level threshold value greater than said predetermined level threshold value.." states that the signal levels are lower than the predetermined level threshold because the other threshold is greater than the predetermined threshold. Therefore it would be obvious to one of ordinary skill in the art at the time the invention was made that the silence detecting software of Gilbert implicitly reads on this limitation.

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Claim 6, Gilbert et al discloses a computer-readable medium including computer executable instructions, wherein the instructions, when executed by a processor, cause the processor (col. 3 lines 13-20) to perform a method comprising: of generating noise-eliminated audio data by eliminating .noise from audio data generated by digitally converting analog audio signals of a plurality of tracks, the plurality of tracks having inter-track boundaries that are silent portions (col. 4 line 6-15 and col. 4 line 30-39); of detecting presumed inter-track boundaries presumed to be inter-track boundaries of said plurality of tracks based on first portions of said noise-eliminated audio data the first portions having signal levels that are lower than a predetermined level threshold value (col. 5 line 1-12, limitation, "predetermined threshold" is inherent to invention because silence is a threshold); and specifying said inter-track boundaries from presumed inter-track boundaries, based on inter-track boundaries specifying information detected including at least one of a number of tracks of said plurality of tracks and playing times of the tracks (col. 4 line 42-56) and detecting said inter-track boundaries of said plurality of tracks, based on second portions of said noise-eliminated audio data, when a number of presumed tracks is smaller than said number of tracks, the second portions having signal levels lower than a level threshold value, the presumed tracks being tracks divided by said presumed inter-rack boundaries (col. 5 line 1-37).

Gilbert et al does not explicitly disclose, the second portions having signal levels lower than another level threshold value greater than said predetermined level threshold value

Gilbert discloses two threshold levels for silence and background noise (col. 4 lines 33-46). Gilbert does not explicitly disclose one threshold value greater than another;

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however it would be obvious to one of ordinary skill in the art at the time of the invention that a noise threshold would be higher than a silence threshold. Therefore it would be obvious to one of ordinary skill in the art at the time the invention was made to modify the silence detecting software of Gilbert et al with the floating threshold of Gilbert in order to detect silence, music, noise and various audio states.

In addition, the limitation, "...based on the portions of said noise-eliminated audio data whose signal levels are lower than another level threshold value greater than said predetermined level threshold value.." states that the signal levels are lower than the predetermined level threshold because the other threshold is greater than the predetermined threshold. Therefore it would be obvious to one of ordinary skill in the art at the time the invention was made that the silence detecting software of Gilbert implicitly reads on this limitation.

Claim 7, Gilbert et al discloses an information processing apparatus for detecting inter-track boundaries (abstract), comprising: a generation unit configured to generate noise-eliminated audio data by eliminating noise from audio data generated by digitally converting analog audio signals of a plurality of tracks, the plurality of tracks having inter-track boundaries that are silent (col. 4 line 6-15 and col. 4 line 30-39); a detection unit configured to detect presumed inter-track boundaries presumed to be the inter-track boundaries of said plurality of tracks, based on first portions of said noise-eliminated audio data, the first portions having signal levels lower than a predetermined level threshold value (col. 5 line 1-12, limitation, "predetermined threshold" is inherent to invention because silence is a threshold); the detection unit being further configured to

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detect said inter-track boundaries of said plurality of tracks, based on second portions of said noise-eliminated audio data, when a number of presumed tracks is smaller than said number of tracks, the second portions having signal levels lower than another level threshold value greater than said predetermined level threshold value, the presumed tracks being tracks divided by said presumed inter-track boundaries; and a specifying unit configured to specify said inter-track boundaries from said presumed inter-track boundaries, based on inter-track boundaries specifying information including a number of tracks of said plurality of tracks (col. 4 line 42-56).

Gilbert et al does not explicitly disclose, the second portions having signal levels lower than another level threshold value greater than said predetermined level threshold value

Gilbert discloses two threshold levels for silence and background noise (col. 4 lines 33-46). Gilbert does not explicitly disclose one threshold value greater than another;

however it would be obvious to one of ordinary skill in the art at the time of the invention that a noise threshold would be higher than a silence threshold. Therefore it would be obvious to one of ordinary skill in the art at the time the invention was made to modify the silence detecting software of Gilbert et al with the floating threshold of Gilbert in order to detect silence, music, noise and various audio states.

In addition, the limitation, "...based on the portions of said noise-eliminated audio data whose signal levels are lower than another level threshold value greater than said predetermined level threshold value.." states that the signal levels are lower than the predetermined level threshold because the other threshold is greater than the

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predetermined threshold. Therefore it would be obvious to one of ordinary skill in the art at the time the invention was made that the silence detecting software of Gilbert implicitly reads on this limitation.

Claim 8 analyzed with respect to claim 5, Gilbert et al discloses wherein the specifying includes specifying, as said inter-track boundaries presumed inter-track boundaries in between presumed tracks (col. 4 line 30-39), said inter-track boundaries specifying information including the shortest playing time and the longest playing time (col 4 line 47-51).

Gilbert et al does not explicitly disclose the presumed tracks having presumed track playing times longer than a shortest playing time among playing times of the tracks and shorter than a longest playing time among the playing times of the tracks.

However Gilbert discloses matching track lengths, (col. 5 line 27-31) and detecting a smaller than average track (col. 4 line 61-67).

Therefore it would be obvious to one of ordinary skill in the art at the time the invention was made that the audio method of Gilbert determines a track length error by noting smaller or larger than average track lengths.

Claim 9 analyzed with respect to claim 5, Gilbert et al discloses wherein the specifying includes presuming said presumed inter-track boundaries as said inter-track boundaries based on errors between presumed track playing times of the presumed tracks and

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playing times of the tracks (col. 5 line 25-37), said inter-track boundaries specifying information including the playing times of the tracks (col. 4 line 49-50).

Claim 10 analyzed with respect to claim 5, Gilbert et al discloses comparing the number of presumed tracks with said number of tracks, wherein the detecting includes detecting said inter-track boundaries of said plurality of tracks (col. 5 line 1-12), when the number of presumed tracks is smaller than said number of tracks according to a result of the comparing (col. 4 line 42-45).

Claim 11 analyzed with respect to claim 6, Gilbert et al discloses wherein the specifying includes specifying, as said inter-track boundaries presumed inter-track boundaries in between presumed tracks (col. 4 line 30-39), said inter-track boundaries specifying information including the shortest playing time and the longest playing time (col 4 line 47-51).

Gilbert et al does not explicitly disclose the presumed tracks having presumed track playing times longer than a shortest playing time among playing times of the tracks and shorter than a longest playing time among the playing times of the tracks.

However Gilbert discloses matching track lengths, (col. 5 line 27-31) and detecting a smaller than average track (col. 4 line 61-67).

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Therefore it would be obvious to one of ordinary skill in the art at the time the invention was made that the audio method of Gilbert determines a track length error by noting smaller or larger than average track lengths.

Claim 12 analyzed with respect to claim 6, Gilbert et al discloses wherein the specifying includes presuming said presumed inter-track boundaries as said inter-track boundaries based on errors between presumed track playing times of the presumed tracks and playing times of the tracks (col. 5 line 25-37), said inter-track boundaries specifying information including the playing times of the tracks (col. 4 line 49-50).

Claim 13 analyzed with respect to claim 6, Gilbert et al discloses comparing the number of presumed tracks with said number of tracks, wherein the detecting includes detecting said inter-track boundaries of said plurality of tracks (col. 5 line 1-12), when the number of presumed tracks is smaller than said number of tracks according to a result of the comparing (col. 4 line 42-45).

Claim 14 analyzed with respect to claim 7, Gilbert et al discloses wherein the specifying unit is configured to specify, as said inter-track boundaries, said presumed inter-track boundaries in between presumed tracks (col. 4 line 30-39), said inter-track boundaries specifying information including the shortest playing time and the longest playing time (col 4 line 47-51).

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Gilbert et al does not explicitly disclose the presumed tracks having presumed track playing times longer than a shortest playing time among playing times of the tracks and shorter than a longest playing time among the playing times of the tracks.

However Gilbert discloses matching track lengths, (col. 5 line 27-31) and detecting a smaller than average track (col. 4 line 61-67).

Therefore it would be obvious to one of ordinary skill in the art at the time the invention was made that the audio method of Gilbert determines a track length error by noting smaller or larger than average track lengths.

Claim 15 analyzed with respect to claim 7, Gilbert et al discloses wherein the specifying unit is configured to presume said presumed inter-track boundaries as said inter-track boundaries based on errors between presumed track playing times of the presumed tracks and playing times of the tracks (col. 5 line 25-37), said inter-track boundaries specifying information including the playing times of the tracks (col. 4 line 49-50).

Claim 16 analyzed with respect to claim 7, Gilbert et al discloses wherein the specifying unit is further configured to compare the number of presumed tracks with said number of tracks, and the detection unit is configured to detect said inter-track boundaries of said plurality of tracks (col. 5 line 1-12), when the number of presumed tracks is smaller than said number of tracks according to a result of the comparing (col. 4 line 42-45).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to FATIMAT O. OLANIRAN whose telephone number is (571)270-3437. The examiner can normally be reached on M-F 10:00-6 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vivian Chin can be reached on 571-272-7848. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

FO

/Vivian Chin/
Supervisory Patent Examiner, Art Unit 2614